

**WHAT IS CLAIMED IS:**

1. A method for depositing a thickfilm dielectric on a substrate, comprising:
  - a) depositing a first layer of thickfilm dielectric on the substrate;
  - b) air drying the first layer to allow solvents to escape, thereby increasing the porosity of the first layer;
  - 5 c) oven drying the first layer;
  - d) depositing additional layers of thickfilm dielectric on top of the first layer, oven drying after the deposition of each additional layer; and
  - e) firing the deposited layers.
2. The method of claim 1, wherein the first layer is air dried for at least 45 minutes.
3. The method of claim 1, wherein said oven drying of the first layer comprises oven drying at a peak temperature of about 150°C for about fifteen minutes.
4. The method of claim 3, wherein said oven drying of the additional layers comprises oven drying at a peak temperature of about 150°C for about fifteen minutes.
5. The method of claim 1, wherein said firing comprises firing at a peak temperature of about 850°C.

6. The method of claim 1, further comprising measuring a dry print thickness of the deposited layers to determine if a desired final dielectric thickness will be achieved after the deposited layers are fired.
7. The method of claim 6, wherein the dry print thickness of the deposited layers is measured using one of a drop-gauge micrometer or stylus profilometer.
8. The method of claim 6, wherein the dry print thickness of the deposited layers is measured using a drop-gauge micrometer.
9. The method of claim 1, wherein the layers of thickfilm dielectric comprise a KQ dielectric.
10. The method of claim 9, wherein the KQ dielectric is KQ CL-90-7858 dielectric.
11. The method of claim 10, further comprising, after firing, grinding the deposited layers to a desired final dielectric thickness, and then refiring the deposited layers to smooth the ground surface and edges.
12. The method of claim 1, wherein the layers of thickfilm dielectric comprise a glass dielectric.

13. The method of claim 1, further comprising thinning the thickfilm dielectric to  $18.0 \pm 2.0$  viscosity prior to deposition.
14. The method of claim 1, wherein the layers of thickfilm dielectric are deposited by printing the layers through a stainless steel screen having 200 mesh, 1.6 mil wire, .8 mil emulsion.
15. The method of claim 1, further comprising depositing additional layers of thickfilm dielectric until a dry print thickness in excess of a desired dry print thickness is achieved, and then planarizing the deposited layers to a desired dry print thickness prior to firing the deposited layers.
16. The method of claim 1, further comprising, after firing, grinding the deposited layers to a desired final dielectric thickness, and then polishing the ground surface.
17. The method of claim 1, wherein the first layer is air dried for at least 45 minutes, wherein said oven drying of the first layer comprises oven drying at a peak temperature of about  $150^{\circ}\text{C}$  for about fifteen minutes, wherein said oven drying of each additional layer comprises drying at a peak temperature of about  $150^{\circ}\text{C}$  for about five minutes, and wherein said firing comprises firing at a peak temperature of about  $850^{\circ}\text{C}$ .
18. The method of claim 17, wherein the thickfilm dielectric comprises KQ CL-90-7858 dielectric.

19. The method of claim 18, wherein the KQ CL-90-7858 dielectric is thinned to a viscosity of  $18.0 \pm 2.0$  prior to deposition.
20. The method of claim 18, further comprising, after firing, grinding the deposited layers to a desired final dielectric thickness, and then refiring the deposited layers to smooth the ground surface and edges.